

ISAKOVA-KEO, M.M.

Results of the investigation of year-round supply of planktonic and  
benthonic organisms for fish fry in ponds. Vop. skol. 5:87-88  
'62. (MIRA 16:6)

1. Leningradskiy gosudarstvennyy universitet.  
(Fishes—Food)

ISAKOVA-KEO, M. M.,

Results of experiments in the food supply for young salmon  
in ponds with low water temperature. Trudy FBI no.19:136-148  
'62. (MIRA 16:1)

1. Laboratoriya zoologii bespozvonochnykh Petergofskogo  
biologicheskogo instituta.

(Salmon) (Pelci—Fish culture)

ISAKOVIC, D.

Gasification of coal. p. 525.  
TEHNIKA, Beograd, Vol. 10, no. 4, 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955,  
Uncl.

*DUSAN ISAKOVIC*

YUGOSLAVIA / Chemical Technology, Chemical Products and Their Application. Part 3. - Treatment of Solid Combustible Minerals. H-21

Abs Jour : Ref. Zhur. Khimiya, No 4, 1958, 12431.

Author : Dusan Isakovic.

Inst : Not given

Title : Ways to Utilize Lignite from Kossovo Occurrence (Yugoslavia). Parts I and II:

Orig Pub : Tehnika, 1956, 11, No 9, 1329 - 1337; No 10, 1483 - 1492.

Abstract : I. The problem of a complex utilization of lignite from the Kossovo occurrence, the total reserves of which exceed 6 billions of tons, are discussed. The geological description of the occurrence, the chemical composition of the lignite and the results of cleaning, briquetting without

Card 1/2

YUGOSLAVIA / Chemical Technology, Chemical Products and Their Application. Part 3. - Treatment of Solid Combustible Minerals. H-21

Abs Jour : Ref. Zhur. Khimiya, No 4, 1958, 12431.

Abstract : binder addition and semicoking made by various institutes are presented. Lignite samples for the experiments were taken from the Krushevats mine (reserves 400 millions of tons) mined by the opencast method.

II. The results of coking dried lignite mixed with coking coals, as well as of lignite semicoke mixed with coking coals, of lignite coking after preliminary hydrogenation and gasification in gas generators are presented. Emphasizing the difficulty of industrial cleaning of lignite, the author considers it to be expedient to use it without washing, but selecting layers of best quality lignite at the opencast mining.

Card 2/2

ISAKOVIC, D.

The use of lignite from Kosovo Polje. II. p. 1483.  
(Tehnika, Vol. 11, no. 10, 1956. Beograd, Yugoslavia)

SO: Monthly List of East European Accessions. (EEAL) LC, Vol. 6, No. 7.  
July 1957. Uncl.

Y/001/62/000/005/001/004  
D293/D302

AUTHOR: Isaković, Dušan, Engineer, Deputy Director

TITLE: Organization of the scientific and technical information service in the USSR

PERIODICAL: Tehnika, no. 5, 1962, 829-834

TEXT: The article deals with the organization and activities of the VINITI (All-Union Scientific Research Institute of Scientific and Technical Information). The Director of the Institute is Professor Academician A. Mikhailov and his Deputy, Professor Fomin. The Institute collects, studies and, where required, translates a large number of domestic and foreign scientific and technical publications. The material thus compiled is then disseminated by the Institute either through its journals of abstracts, or through its express information service. VINITI, originally an organ of the Academy of Sciences of the USSR, is today an independent institution, existing on the sale of its publications. The Institute works in close cooperation with the Academy of Sciences, the State Committee of the

Card 1/2

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Organization of the ...

Y/001/62/000/005/001/004  
D293/D302

Council of Ministers of the USSR for Coordination of Scientific Research and with individual Centers for Propagation of Scientific, Technical, Economic and Political Literature. These centers disseminate the technical literature prepared by VINITI to those engaged in their practical application. There are about 40 language experts and over 170 scientific and technical experts employed at the Institute. Much translation and abstracting work is carried out by the VINITI's 22,000 free-lance contributors. Its library has 80,000 volumes, 950,000 - 1,000,000 periodical numbers, about 200 foreign information bulletins and dictionaries for over 65 languages. There is 1 figure.

ASSOCIATION: Jugoslovenski centar za tehničku i naučnu dokumentaciju (Yugoslav Center for Technical and Scientific Documentation), Belgrade

Card 2/2



ISAKOVIC, Dusan, inz. (Beograd, Zeleni venac 2/I)

A contribution to the concept of the Yugoslav Service of  
Technical and Scientific Documentation and Information.  
Pt.1. Tehnika Jug 18 no.10:1805-1812a 0'63

1. Zamenik direktora Jugoslovenskog centra za tehnicku i  
naucnu dokumentaciju, Beograd.

ISAKOVIC, Dusan, inz. (Beograd, Zelent Venac 2/1)

A contribution to the concept of the Yugoslav Technical and Scientific Documentation and Information Service. Pt. 2. Tehnika Jug 18 no.11:1983-1991 N '63.

1. Zamenik direktora Jugoslovenskog centra za tehnicku i nauonu dokumentaciju, Beograd.

JANKOVIC, B.D.; ISAKOVIC, K.

Haemagglutinins in chicken. I. The rate of formation of naturally occurring haemagglutinins. Acta med.iugosl. 14 no.3:246-255 '60.

1. Microbiological Institute, Faculty of Pharmacy, University of Belgrade.

(ANTIBODIES)

JANKOVIC, B.D.; ISAKOVIC, K.

Haemagglutinins in chicken. II. The effect of injected heterologous red blood cells and hog O (H) blood group substance upon the production of natural haemagglutinins. Acta med. iugosl. 14 no.3: 256-265 '60.

1. Microbiological Institute, Faculty of Pharmacy, University of Belgrade.

(ANTIBODIES)

(BLOOD GROUPS)

7  
ISAKOVIC, K.; JANKOVIC, B.D.; HORVAT, J.

Hemagglutinins in chickens. III. The effect of heterologous ribonucleoproteins upon the formation of natural haemagglutinins.  
Acta med. iugoslav. 14 no.4:364-371 '60.

1. Microbiological Institute, Faculty of Pharmacy, University of Belgrade.  
(ANTIBODIES) (NUCLEOPROTEINS pharmacol)

JANKOVIC, B.D.; ISAKOVIC, K.; HORVAT, J.

Haemagglutinins in chicken. IV. First and second antibody responses in chickens previously treated with heterologous ribonucleoproteins, erythrocytes and hog o(h) blood group substance. Acta med. iugoslavl. 14 no.4:372-382 '60.

1. Microbiological Institute, Faculty of Pharmacy, University of Belgrade.

(ANTIBODIES) (NUCLEOPROTEINS pharmacol)  
(BLOOD GROUPS) (ERYTHROCYTES)

ISAKOVIC, Ljubomir, inz.

Railroad rolling stock and the organization of its maintenance  
in France. Zeleznice Jug 18 no.1/2:29-35 '62.

ISAKOVIC, S.

"Roller conveyers in theory and practice by V.Malik. Reviewed  
by S.Isakovic. Stoj vest 10 no.6:182 D '64.



ISAKOVIC, S.

"Rationalization of intra-operational transportation" by E. Bartzsch,  
M. Hauser, H. Kleeberg, and R. Wendschuh. Reviewed by S. Isakovic.  
Stroj vest 7 no. 4-5:122 0 61.

ISAKOVIC, S.

"Professional handbook for crane drivers" by H. J. Wendt and  
H.W. Friedrich. Reviewed by S. Isakevic. Stroj vest 8 no.3:80 Ja  
'62.

ISAKOVIC, S., doc. inz.; MJREN, H.; BUNJEVCEVIC, I., inz.; HRIBAR, M.;  
ZELEZNIKAR, A.

New books and reviews. Avtomatika 3 no.5:385-386 0 '62.

ISAKOVIC, S.

"Pneumatic transportation in the massive concentrations of transportation means" by G. Welschhof. Reviewed by S. Isakovic. Stroj. vest 9 no. 4/5:131 0 '63.

"Transportation in storehouses." Pt. 2. Reviewed by S. Isakovic. Ibid.:131

ISAKOVIC, Vojislav, dr.

History of the City Hospital of Zrenjanin. Med. pregl., Novi Sad  
7 no. 5:404-406 1954.

(HOSPITALS, hist.  
in Yugosl., City Hosp. of Zrenjanin)

ISAKOVICH, D.L.

Cold braking of rods on a Pelts' press. Kuz.-shtam.proizv. 5  
no.2:47 F '63. (MIRA 16:2)

(Metal cutting)

KRASOV, A.F.; KUPRIN, P.A.; ISAKOVICH, D.L.

In the country's steel smelting plants. Metallurg 9 no.5:24-  
26 My '64. (MIRA 17:8)

ISAKOVICH, G., inzh.

Coarse-pore concrete made with keramzit and plastic. Stroitel'  
no.8:23-24 Ag '61. (MIRA 14:8)  
(Lightweight concrete)



ISAKOVICH, G.A., kand.tekhn.nauk; SHMIDT, L.M., kand.tekhn.nauk; BRONSHTEYN,  
B.S., inzh.; ROZOVSKIY, V.S., inzh.

Synthetic binders in the production of mineral wool products.  
Stroi. mat. 11 no.10:35 0 '65. (MIRA 18:10)

SHCHEPOTOV, A.M., kand.tekhn.nauk; ISAKOVICH, G.A., inzh.

Production of plastic-type concrete and its use in construction.  
Stroi.mat. 6 no.5:4-7 My '60. (MIRA 13:7)  
(Concrete)

S/812/61/000/005/002/005

AUTHORS: Skramtayev, B.G., Doctor of Technical Sciences, Shchepetov, A.M.,  
Candidate of Technical Sciences, Isakovich, G.A., Engineer.

TITLE: Light-weight macroporous synthetic-resin concrete.

SOURCE: Akademiya stroitel'stva i arkhitektury SSSR. / Institut novykh  
stroitel'nykh materialov. Sbornik trudov. no.5. 1961. Novyye  
stroitel'nyye polimernyye materialy. pp. 38-47.

TEXT: The paper reports the results of experimental work on macroporous (MP) concrete that serves as the heat-insulating layer in wall panels. The senior author had previously shown that, regardless of the presence of large-diameter open pores, the thermal conductivity of such material is primarily determined by the weight per unit volume of the material, which renders grain size, degree of compaction, etc., as such, insignificant as thermal-conductivity parameters. The substantial air-permeability of MP concrete renders plastering on both sides necessary. Thus, a reduction in weight of MP concrete through the use of light-weight fillers and highly adhesive binders permits the making of thermally highly insulating concretes with relatively good strength properties. This can be achieved with thermosetting (TS) synthetic resins (SR), but at a high cost. Hence, concretes with

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'Light-weight macroporous synthetic-resin concrete.

S/812/61/000/005/002/005

minimal quantities of SR only can be given consideration. This requirement is met largely by the MP "keramzit" (porous-clay-filler) concrete developed by the authors, in which kernels of keramzit gravel are bound by TS SR; the gravel has a small specific surface area of  $4-15 \text{ cm}^2/\text{g}$  and a low weight per unit volume ( $300-450 \text{ kg/m}^3$ ), both of which render it economical in its use of resin binder and effective as an insulating building material. Other light-weight fillers (listed) have greater specific surface areas and, hence, tie up greater quantities of costly binder. Among the SR, the phenol-formaldehydes (PF) are most suitable for water- and atmospheric-action resistance and mechanical properties. The present tests were made on HCM-11 (NSM-11) resin, developed by the new-building-materials lab of Glavmosoblstroyaterialov (Main Moscow Oblast Administration of Building Materials) and the experimental factory of the April Plant. Initial material: Cyclohexanol ( $\text{C}_6\text{H}_{11}\text{OH}$ ) obtained by electrolytic hydration of phenol ( $\text{C}_6\text{H}_5\text{OH}$ ). Characteristics of NSM-11: spec. grav.  $1.13-1.15 \text{ g/cm}^3$ , viscosity  $6-10$  centipoises, free-phenol content  $6-7\%$ , dry residue  $58.6-61.4\%$ . The unit consumption of SR is governed primarily by the filler-grain size and the required binder-film thickness, which, in turn, depends on the viscosity and the physico-mechanical properties of the SR. The viscosity of the SR should not be so low that it can run off the grains of the filler during forming and heat treatment, neither should it be so high that it could prevent the formation of a good contact because of excessive surface tension.

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Light-weight macroporous synthetic-resin concrete.

S/612/61/000/005/002/005

The optimal thickness as determined experimentally is 0.15-0.25 mm. An empirical equation is provided for the amount of commercial resin per  $m^3$  of concrete in terms of the uncompacted (freely poured) and the solid weight of filler per unit weight, the thickness of the binder film, the specific gravity of the resin, and the mean filler-grain radius. A formula is provided for the latter in terms of the percentual content in the filler mix of grains of a given fraction and the retaining and the passing meshes which determine the size of the grains of the given fraction. A correction factor (as large as 50% in keramzit) must be added in the first formula to allow for the filling of the apertures on the surface of the filler. A finely comminuted addition to the resin increases the total binder volume and improves its retention on the grain surface, especially during the initial period of the heat treatment. Of the several admixtures tested, ground sand added in the amount of 50-100% of the resin weight was optimal. The particle size of the ground sand must not be greater than the size of the open pores on the filler surface, since otherwise the particles remain on the surface of the "keramzit," whereas the SR flows into the pores, so that the SR consumption is increased and the strength of the concrete is reduced. The preparation of the keramzit-plastic-concrete is described. Requirements governing the selection of the resin hardener (if any is required) are discussed. In PF SR, in which setting is accomplished without hardeners by heating alone, the porosity produced by water-vapor formation requires that heating proceed

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Light-weight macroporous synthetic-resin concrete. S/812/617000/005/002/005

at a slow rate and not exceed a T 15-20° below that at which significant amounts of water vapor are emitted. Addition of formaldehyde and organic acids will accelerate hardening of PF resins; the hardening pH must be of the order of 5.5-6.5. The process of mixing of the resin with hardener and finely-ground mineral additive is described, followed by specifications for the sucking of the heat carrier through the porous concrete material to accelerate the heat-curing process within the highly heat-insulating material. In view of the relatively small mechanical strength of the filler, the strength of the concrete as a whole depends but little on the amount of SR in it (beyond a prescribed minimum of SR required for effective bonding). Compression tests showed failure within the keramzit grains, not at their mutual points of contact. Hence, any further addition of bonding SR would be futile. The weight per unit volume of MP keramzit concrete depends primarily on the weight of the keramzit filler and only insignificantly on that of the binder. The low weight per unit volume and relatively high strength of MP keramzit concrete renders it suitable for use as a heat-insulating material in multi-layered panel constructions and, because of its low resin consumption and low cost, affords competition as an intermediate rigid heat-insulating material for installation directly inside the outer reinforced-concrete structure layer and as a support for interior plastering. In low buildings the MP keramzit concrete can also serve for selfsupporting walls and in framework buildings for filler walls. There are 5 figures, 3 tables, and

Card 4/5

Light-weight macroporous synthetic-resin concrete.

S/312/61/000/005/002/005

4 references (3 Russian-language Soviet and 1 French by Levy, Un matériel  
commode et économique, le béton caverneux. "Bâtir," no.35, Nov. 1953, 3-9.

ASSOCIATION: None given.

Card 5/5

MOROZOV, N.V., kand.tekhn.nauk; SHCHEPETOV, A.M., kand.tekhn.nauk;  
TSIMBLER, V.G., inzh.; ISAKOVICH, G.A., inzh.

Use of plastic-type concretes as insulators for wall slabs.  
Stroi.mat. 8 no.7:15-18 J1 '62. (MIRA 15:8)  
(Concrete) (Insulation (Heat))



ISAKOVICH, G.A., inzh.; SLIPCHENKO, G.F., inzh.

Investigating synthetic binders for the production of heat insulating plastic concrete. Sbor. trud. VNIINSM no.7:14-28 '63.  
(MIRA 17:11)

KOSHKIN, Viktor Gavrilovich; CHERKINSKIY, Yuliy Samuilovich;  
LARKINA, Vera Ivanovna; ISAKOVICH, Grigoriy Aleksandrovich;  
SLIPCHENKO, Galina Fedorovna; BELOVA, Aleksandra Panteleymonovna;  
GURVICH, E.A., red.izd-va; SHERSTNEVA, N.V., tekhn. red.

[Synthetic materials for floor coverings in industrial buildings] Sinteticheskie materialy dlia pokrytii polov promyshlennykh zdanii. [By] V.G.Koshkin i dr. Moskva, Gosstroizdat, 1963. 128 p. (MIRA 17:2)

ISAKOVICH I. YE.

USSR / Farm Animals. Domestic Fowls.

U-10

Abs Jour : Ref Zhur - Biologiya, No 16, 1957, 72180

Author : Akhundov, Isakovich

Title : The Effect of Treated Humbrine on the Organism of Domestic Fowl.

Orig Pub : Elmi Eserler, Azerb. Univ. Uch Zap. Azerb. Un-t, 1956, No 8, 53-57

Abstract : The tests were conducted on 4 test and 2 control roosters four months of age. In the daily ration 10, 15, 30 and 40 gm of seed was substituted serially by a corresponding quantity of treated humbrine [?]. The roosters assimilated 84-97 percent of the mineral oils from humbrine. The weight of the tested animals was higher than that of the controls. 25-30 percent of the daily ration of the grown chickens may be substituted by the treated humbrine.

Card : 1/1

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12565

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S/816/61/000/024/003/003

AUTHORS: Isakovich, L. A., and Sochilina, A. S.

TITLE: Preliminary orbit elements of the capsule of the fourth Soviet artificial earth satellite (Sputnik IV or 1960 ).

SOURCE: Akademiya nauk SSSR. Astronomicheskii sovet. Byulleten' stantsii opticheskogo nablyudeniya iskusstvennykh sputnikov Zemli, no. 24, 1961, 16-20.

TEXT: A summary of the system of equatorial orbit elements of the capsule of the Sputnik IV from June 1960 through June 1961, as obtained from visual observations. The elements were determined for 2-4 day periods at 7-10-day intervals. The following elements are reported:  $t_0$  - the osculation epoch of the elements;  $\Omega$  - the right ascension of the node;  $\omega$  - the perigee-to-node distance;  $M_0$  - the mean anomaly at the time  $t_0$ ;  $\varphi$  - the angle of the orbit eccentricity;  $\bar{n}$  - the mean 24-hour motion of the satellite; and  $i$  - the orbit inclination relative to the equatorial plane. All elements are referred to the true equator and the equinox of the time of osculation. The secular perturbation coefficients are also provided. The value of the semi-major axis is not given directly, but it can be readily obtained from other orbit elements listed. The computations were performed on the BESM (BESM)

Card 1/2

PROSKURIN, V.F.; ISAKOVICH, L.A.

Normal positions of the sixth satellite of Jupiter. Biul.Inst.-  
teor.astron. 8 no.6:421-428 '62. (MIRA 15:8)  
(Satellites--Jupiter)

S/035/62/000/011/011/079  
A001/A101

24.4100  
AUTHORS:

Proskurin, V. F., Isakovich, L. A.

TITLE:

Normal positions of the sixth satellite of Jupiter

PERIODICAL:

Referativnyy zhurnal, Astronomiya i Geodeziya, no. 11, 1962, 14,  
abstract 11A104 ("Byul. In-ta teor. astron. AN SSSR", 1962, v. 8,  
no. 6, 421 - 428, French summary)

TEXT:

The sixth satellite of Jupiter belongs to the group of satellites (sixth, seventh, tenth) whose orbits are very close. The theory of the seventh satellite was elaborated by S. S. Tokmaleva, however she did not compare it with observations and did not derive corrections to elements. The theory of the tenth satellite was construed by Ye. N. Lemekhova in analogy to the Delone theory of the Moon: it was compared with observations and improved elements were obtained, i.e., this theory has been completed. The new theory of the Jovian sixth satellite is calculated by V. F. Proskurin; expressions for perturbations of the satellite by the Sun are given, and the results of processing 212 observations of this satellite, reduced to 41 normal positions, are presented in this article. There are 5 references.

N. Yakhontova

[Abstracter's note: Complete translation]  
Card 1/1

COMMON ELEMENTS																										COMMON VARIABLES INDEX																									
1ST AND 2ND GROUPS																										3RD AND 4TH GROUPS																									
SA																										A53																									
36																										532.522																									
<p>Monomolecular film on a free jet of water. HANCOCK, M. A., AND RAMEY, R. M. <i>J. Phys., U.S.S.R.</i>, <b>4</b>, 5-7, pp. 50-54, 1944.—Monomolecular films of surface-active substances can be obtained not only on the surface of water at rest but also under certain conditions on a free jet of water. This phenomenon can be observed when a jet strikes the surface of water spread with some surface-active substance which rises up along the jet, then forming a stationary monomolecular tube through which the jet flows. The height to which the film rises on the jet depends on the pressure in the film and the friction between it and the water. Some experiments and calculations are described concerning the formation of jet and film in a monomolecular tube covering the whole length of the jet, and the inflow of the jet in a tube which covers only a portion of the jet.</p>																																																			
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ISAKOVICH, M. A.

Isakovitch, M. A. Sur localisation de l'énergie potentielle dans une corde vibrante. C. R. (Doklady) Acad. Sci. URSS (N.S.) 51, 95-98 (1946).

It is shown that, to the first order of approximation, the tension (and thus the potential energy) in a string undergoing essentially transverse vibrations is a function of the time only. From this are deduced the known form for the tension and for the induced longitudinal motion. [For more detailed results, cf. Carrier, Quart. Appl. Math. 3, 157-165 (1945); these Rev. 7, 13.]

G. F. Carrier.

Source: Mathematical Reviews,

Vol 8, No. 2



ISAKOVICH, M. A.

"Theory of Flight" OGIZ, State Publication of Technical-Theoretical Literature, 1947.

CH

2

Theory of absorption of sound in polycrystals. M. A. Isakovich. *Zhur. Eksp. Teor. Fiz.* 18, 308-91(1948).  
 The theory of Zener (*Phys. Rev.* 52, 230(1937); 53, 10 (1938); 54, 343(1939)) is modified by the introduction of heat exchange between the individual crystallites. Consideration of temp. continuity across the crystallite boundaries, expressed by the introduction of "proper" temp. waves within a crystallite, leads, at high frequencies  $\nu$ , to a proportionality between the absorption coeff.  $\alpha$  and  $\sqrt{\nu}$ . This asymptotic law can be extended to noncryst. media with "microscopic" areas of heterogeneity, i.e. areas small in comparison with the wave length of the sound. The absorption characterized by proportionality between  $\alpha$  and  $\nu^2$  at low  $\nu$ , is of the "macroscopic" type, i.e. equalization takes place between heterogeneities of the dimension of a half-wave, as in viscous Stokes and temp. Kirchhoff absorption.  
 N. Thon

CH

General & Physical  
Chemistry - 2

Propagation of sound in emulsions. M. A. Isakovich...  
(P. N. Lebedev Phys. Inst. Acad. Sci. U.S.S.R., Moscow).  
Zhur. Eksp. Teor. Fiz. 18, 907-12 (1948). — In an emulsion  
of one liquid in another, "thermal" dispersion of the velocity  
of sound, i.e. with Newtonian isothermal compressions and  
rarefactions, can exist on a "microscopic" scale between the  
components of the emulsion, although macroscopically the  
phenomenon is still Laplacian, i.e. with adiabatic com-  
pressions and rarefactions. The range of the "Laplacian-  
Newtonian" velocity of sound is at lower frequencies;  
transition to "Laplacian-Laplacian" sound velocity, in  
which the compressions and rarefactions are adiabatic on  
both the microscopic and the macroscopic scales, occurs at a  
crit. frequency at which the length of the temp. wave is of  
the same order as the grain dimensions of the emulsion. The  
ratio  $\gamma = C_p/C_v$  of the heat capacities for emulsions is a  
function of the frequency, and becomes equal to the macro-  
scopic ratio only at low frequencies. The usual Kirchhoff  
quadratic frequency dependence of the sound holds in emul-  
sions only at low frequencies, but the dependence on heat  
cond. is reversed, in that the absorption decreases with in-  
creasing heat cond. At higher frequencies the absorption  
is proportional to the square root of the frequency. Damp-  
ing of sound in emulsions can be considerable even at mod-  
erate frequencies. Thus, in a 10% emulsion of Colla in  
H<sub>2</sub>O, with a grain size of  $\sim 0.5 \mu$ , the damping coeff. in  $1.5 \times$   
 $10^5$  hertz is  $\sim 1.5 \times 10^{-2}$ , i.e. about 100 times as great as  
in pure Colla.  
N. Thun

USSR/Physics - New Techniques  
Rubber Apr 50

"Impulse-Phase Method of Determining the Mechanical Parameters of Rubberlike Materials," M. A. Isakovich, Phys Inst imeni Lebedev, Acad Sci USSR, 7 pp

"Zhur Eksper i Teoret Fiz" Vol XX, No 4

Analyzes new method for determining moduli of elasticity and coefficients of viscosity of rubberlike materials. Desired quantities occur in usual formulas involving all pertinent parameters and are found in terms of more

159789

USSR/Physics - New Techniques (Contd) Apr 50

easily measured parameters, and hence determined when the latter are known. Submitted 5 Jan 50.

159789

FA 159789

ISAKOVICH, M. A.

ISAKOVICH, M. A.

M. A. Isakovich and M. G. Sirotiuk/ A variant of the Tepler method applied to the observation of ultra sound fields. P. 715.

Jan. 24, 1951

SO: Journal of Technical Physics, Vol. XXI, No. 6, June 1951

ISAKOVICH, M.A.

USSR/Engineering - Materials, Ultrasonics

Jun 52

"Electromechanical Q-meter - Equipment for Measuring the Elasticity Modulus and Losses of Materials Under Ultrasonics," N. S. Ageyeva, I. P. Zhukov, M. A. Isakovich, A. L. Sosedova, Yu. M. Sukharevskiy

"Zhur Tekh Fiz" Vol XXII, No 6, pp 1029-1042

Describes in detail equipment for said measurements under ultrasonics within the range of tens of kilocycles. Explains the theory of the equipment and gives computational formulas and graphs for detg Young's modulus of solids and modulus of shear of rubber-like materials and decrement of extinction, according to elec measurements. Also indicates the effect of temp and pressure on results. Received 30 Jan 51.

219T40



ISAKOVICH, M.A., kandidat fiziko-matematicheskikh nauk (Moscow).

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Aerodynamics of airplane flight. Fiz.v shkole 7 no.3:3-17 '53.

(MIRA 6:11)

(Aerodynamics)



MYASISHCHEV, V.I., redaktor; ALEKSANDROVA, A.A., redaktor; BELKIN, B.G.,  
[translator]; GRIGOR'YEV, V.S., [translator]; ISAKOVICH, M.A.,  
[translator]; KORUZEV, N.N., tekhnicheskiy redaktor

[Physics of sound in the sea. Translated from the English]  
Fizicheskie osnovy podvodnoi akustiki. Perevod s angliiskogo  
B.G.Belkina, V.S.Grigor'eva, i M.A.Isakovicha. Moskva, Izd-vo  
"Sovetskoe radio," 1955. 739 p. (MLRA 9:2)  
(Underwater acoustics)

ISACOVICH, M. A.

"The Use of Kirchgoff's Principle in the Solution of Some Problems Relating to Scattering and Radiation of Sound".

Abstracted for inclusion in the Second International Congress on Acoustics, Cambridge, Mass., 17-24, Jun 1956

Acoustical Institute of AS, USSR, Moscow

ISAKOVICH, M. A.

"The Application of Solid Layers for the Removing of Shear Waves Appearing at the Reflection of Sound Waves from the Boundary of a Solid".  
Abstracted for inclusion in the Second International Congress on Acoustics, Cambridge, Mass., 17-24, Jun 1956

Acoustical Institute of AS, USSR, Moscow

*ISAKOVICH, M.A.*

Category : USSR/Acoustics - Sound Vibrations and Waves

J-2

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4710

Author : Isakovich, M.A.

Inst : Acoustics Institute, Academy of Sciences USSR, Moscow

Title : On the Scattering and Radiation of Waves by Statistically Inhomogeneous and Statistically Fluctuating Surfaces.

Orig Pub : Akust. zh., 1956, 2, No 2, 146-149

Abstract : The application of the Kirchhoff principle to an approximate solution of problems concerning the scattering of sound from a planar boundary with a statistical distribution of the coefficient of reflection and concerning the radiation of sound from a statistically fluctuating planar or curved surface. The radiation from the curved surface can be obtained if the radius of the correlation of the distribution of the fluctuation velocities over the surface is small compared with the radii of curvature of the surface, and in this case the Green's formula for the radiated field reduces to a single-term form. Expressions are obtained for the intensities of the scattered and radiated fields for an arbitrary form of the correlation function, and the corresponding

Card : 1/2

ISRAKOVICH, M. A.

Category : USSR/Acoustics - Sound Vibrations and Waves

J-2

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4713

Author : Isakovich, M.A.

Inst : Acoustics Institute, Academy of Sciences USSR, Moscow

Title : The Use of Layers that Eliminate the Formation of Transverse Waves  
When a Longitudinal Wave is Reflected from the Boundary of a Solid.

Orig Pub : Akust. zh., 1956, 2, No 2, 150-53

Abstract : The problem of suppressing the transverse waves which arise when sound is reflected in solids is stated and theoretically solved by depositing a solid layer on the surface of the solid body. This method is analogous to the use of translucent layers in optics and acoustics, except that the purpose here is to suppress waves of a type different than that of the incident wave. A condition relating the required thickness of the deposited layer with the specified frequency of the sound, with the glancing angle of the incident wave, and with the parameters of the material is obtained for the suppression of the transverse wave. By way of an example, the cadmium layer that should be deposited on steel is calculated for an incident sound frequency of 1 mc and for angles of inci-

Card : 1/2

AUTHOR: Isakovich, M.A.

46-1-5/20

TITLE: Scattering of acoustic waves at small inhomogeneities of the wave guide. (Rasseyaniye zvukovykh voln na malykh neodnorodnostyakh v volnovode.)

PERIODICAL: "Akusticheskiy Zhurnal" (Journal of Acoustics), 1957, Vol. III, No. 1, pp. 37 - 45, (U.S.S.R.)

ABSTRACT: The theory of wave propagation in inhomogeneous media presents two groups of problems: one group relates to the propagation of waves in stratified media or stratified inhomogeneities and in general in unbounded media with regularly varying parameters, such as acoustical and electro-magnetic waveguides, the "waveguide" effects in the sea or the atmosphere, etc. Problems of this group are solved assuming that there are no local inhomogeneities or fluctuations of parameters. The second group comprises all the problems of propagation in unbounded media, the parameters of which vary from point to point, fluctuating around a certain mean value 1); for this group, solutions are obtained by assuming a constant mean value of parameters over a wide range. Problems of this group are, for instance, those of wave scatter at coarse or inhomogeneous surfaces (2, 3, 4). Both factors, i.e. regular variation of the parameters of the medium and their space fluctuations around the average value are problems which are essential in the theory of wave propagation and are often me-

Card 1/2

CHERNOV, Lev Aleksandrovich; ISAKOVICH, M.A., otvetstvennyy red.; SHMIDT,  
V.V., red.izd-va; POLYAKOVA, T.V., tekhn.red.

[Propagation of waves in a medium with random heterogeneity]  
Rasprostroenenie voln v srede so sluchainymi neodnorodnostiami.  
Moskva, Izd-vo Akad. nauk SSSR, 1958. 158 p. (MIRA 11:6)  
(Waves)

KHAYKIN, S.E., KALASHNIKOV, A.G., ISAKOVICH, M.A., LEONTOVICH, M.A.,  
SAKHAROV, D.I.; LANDSBERG, G.S., akad., red.; STARODOMSKAYA, Ye.L., red.;  
MURASHOVA, N.Ya., tekhn. red.

[Elementary textbook in physics] Elementarnyy uchebnik fiziki. Izd. 2.,  
Moskva, Gos. izd-vo fiziko-matematicheskoi lit-ry. Vol. 1 [Mechanics,  
heat, and molecular physics] Mekhanika, teplota, molekuliarnaya  
fizika. 1958. 523 p. Vol. 2. [Electricity and magnetism] Elektrichestvo  
i magnetizm. 1958. 448 p. (MIRA 11:10)

(Physics)



ISAKOVICH, M. A.

"Some Statistical Sound Fields,"

paper presented at the 4th All-Union Acoustical Conference, Moscow, 26 May- 4 Jun 1958.

Publ. in booklet - Referaty dokladov (Abstracts of Reports at the Fourth All-Union Acoustical Conference (Pt. 2. Moscow, Akad. nauk SSSR, 1958, 44p-

This is a mimeographed collection of brief abstracts of papers presented at the 4th All-Union Acoustical Conference. The subjects covered are: propagation of sound in nonhomogeneous media, nonlinear acoustics, ultrasonics, acoustic measurements, electroacoustics and architectural and structural acoustics.

ISAKOVICH, M.A.; ROY, N.A.

Acoustic method for measuring mechanical parameters of  
meteorites. Isk.sput.Zem. no.2:81-82 '58. (MIRA 12:5)  
(Meteorites--Measurement)

21(0),24(0) PHASE I BOOK EXPLORATION SCV/32

Almetsiya nauk SSSR. Fizicheskii Institut

Isledovaniya po eksperimental'noy i teoreticheskoy fizike: (Sbornik) (Studies and Experimental and Theoretical Physics: Collection of Articles) Moscow: Nauka, 1959. 304 p. Mirra ship inserted. 2,300 copies printed.

Ed.: I. L. Fabelinskiy, Doctor of Physical and Mathematical Sciences; Eds. of Publishing House: A. L. Chernysky and V. G. Berkaut, Tech. Ed.: Yu. V. Rylin; Commission for Publishing the Collection in Memory of Grigoriya Samuilovich Landberg: I. Ye. Tam (Chairman), Academician; M. A. Leontovich, Academician; P. A. Bazhulin, Doctor of Physical and Mathematical Sciences; S. L. Mandel'shtam, Doctor of Physical and Mathematical Sciences; I. L. Fabelinskiy, Doctor of Physical and Mathematical Sciences; P. S. Landsberg-Baryshnaya, Candidate of Physical and Mathematical Sciences; and G. P. Molodtsov (Secretary), Candidate of Physical and Mathematical Sciences.

PURPOSE: This book is intended for physicists and researchers engaged in the study of electromagnetic radiations and their role in investigating the structure and composition of materials.

COVERAGE: The collection contains 30 articles which review investigations in spectroscopy, optics, molecular optics, semiconductor physics, nuclear physics, and other branches of physics. The introductory chapter gives a biographical profile of G. S. Landsberg, Professor and Head of the Department of Optics of the Division of Physical Technology at Moscow University, and reviews his work in Rayleigh scattering, combat gases, spectral analysis of metals, etc. No personalities are mentioned. References accompany each article.

Bazhulin, P. A., V. I. Mal'tsev, and M. M. Sushchinskiy. The Role of G. S. Landsberg in the Field of Molecular Spectroscopy II. Formation Processes in an Activated Discharge Generator Operating Under Conditions of Low Arc Currents 27

Alekseyev, V. S., Kh. Ye. Steyn, A. L. Liberman, I. M. Kurnet-tov, M. I. Tyun'kin, B. B. Kuznetsov, and B. B. Kuznetsov. The Feasibility of Establishing the Concentration of Stereoisomeric Dialkylcyclohexane on the Basis of a Combined Scattering Spectrum 43

Andreyev, M. N. Standing Sound Waves of Large Amplitude 53

Bazhulin, P. A. and A. I. Sokolovskiy. Investigation of the Relation of the Width of Combined Scattering Lines to Temperature 56

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ISAKOVICH, M.A.

Finite-amplitude flexural waves retaining their profile form during propagation. Akust.zhur. 6 no.1:121-122 '60. (MIRA 14:5)

1. Akusticheskiy institut AN SSSR, Moskva.  
(Sound waves)

6.8000 (3201, 1099, 1162)

S/046/60/006/003/014/017/XX  
B013/B063

AUTHOR: Isakovich, M. A.

TITLE: Non-linear Effect in Some Problems of Acoustics

PERIODICAL: Akusticheskiy zhurnal, 1960, Vol. 6, No. 3, pp. 321-325

TEXT: Non-linear effects (quadratic correction) were studied for the Sturm - Liouville problem and the propagation of waves in waveguides. Two cases were considered in connection with the first-mentioned problem: 1) vibrations in a medium contained in a hard tube which is covered with ideally reflecting lids on either end; 2) vibrations in an inhomogeneous medium in the tube. For the problem of wave propagation in waveguides, the author used a coordinate system which he calls the Euler-Lagrange system. It is shown that the character of non-linear effects occurring in this case differs from those observed during propagation in an unbounded space, i.e., the solutions have no secular terms. Such terms appear only in degenerate cases. An analysis of the above-mentioned cases for homogeneous media shows that the appearance of pulsations instead of secular terms in quadratic approximation is related, not to

Card 1/2

Card 2/2

ISAKOVICH, M. A. and SIROTYUK, M. G. 2

"A solid resonant device for ultrasound focusing"

report submitted for the 4th Intl. Congress of Acoustics,  
Copenhagen, Denmark, 21-28 Aug 1962.

Acoustic Institute of the Academy of Science U.S.S.R., Moscow.

S/046/62/008/001/016/018  
B125/B102

AUTHOR: Isakovich, M. A.

TITLE: A resonance device of solid material for focusing ultrasonics

PERIODICAL: Akusticheskiy zhurnal, v. 8, no. 1, 1962, 132 - 133

TEXT: The cavity of a spherical resonator consisting of material with low mechanical losses (e. g. aluminum) is filled with the liquid to be irradiated. This paper only furnishes the results of a simplified calculation of the standing waves in this cavity, neglecting the canals necessary in real apparatus. To guarantee the radial resonance, the radius of the cavity must be an integer multiple of half the wavelength of sound in the liquid filling it. The outer radius is found from the respective condition for the radial resonance of a solid with cavity. Vibrations may for instance be excited by a piezoelectric mosaic glued on the exterior surface of the sphere. The following designations are used:  $a$  and  $b$  = inner and outer radius of the solid,  $\rho_1$  = density of liquid,  $\rho$  = density of the solid;  $k_1$ ,  $k$  and  $\kappa$  = wave numbers of the frequency  $\omega$  for waves in the liquid, of the longitudinal and transverse

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A resonance device of solid...

S/046/62/008/001/016/018  
B125/B102

waves in the solid. The pressure of the liquid contained in the cavity  
 $p = \sin k_1 r / k_1 r$ . Under these conditions, the expression

$$\sigma = - \frac{1}{k_1 r (kr)^2 ka (ka)^2} \left\{ ka [(kr)^2 - 4] \cos k(r-a) - 4kr \sin k(r-a) \right\} \times$$

$$\times \left[ (ka)^2 \sin k_1 a - \frac{4}{m} (k_1 a \cos k_1 a - \sin k_1 a) \right] +$$

$$+ [(kr)^2 - 4] \sin k(r-a) + 4kr \cos k(r-a) \times$$

$$\times \left[ (ka)^2 \sin k_1 a + \frac{1}{m} [(ka)^2 - 4] (k_1 a \cos k_1 a - \sin k_1 a) \right];$$

$$p = \frac{i}{\rho c (kr)^2 k_1 a (ka)^2} \left\{ ka [kr \sin k(r-a) + \cos k(r-a)] \times \right.$$

$$\times \left[ (ka)^2 \sin k_1 a - \frac{4}{m} (k_1 a \cos k_1 a - \sin k_1 a) \right] -$$

$$\left. - [kr \cos k(r-a) - \sin k(r-a)] \left[ (ka)^2 \sin k_1 a + \frac{1}{m} [(ka)^2 - 4] (k_1 a \cos k_1 a - \sin k_1 a) \right] \right\}.$$

holds for the radial normal tension, where  $m = q_1/q$ . The resonance condition of the working chamber reads:  $k_1 a = s\pi(1 + i\epsilon)$ ,  $s$  being the (integer) number of the semiwaves pertaining to the radius of the working Card 2/4



A resonance device of solid...

S/046/62/008/001/016/018  
B125/B102

chamber,  $\epsilon$  = tangent of the loss angle in the liquid ( $\epsilon \ll 1$ ),

$$\operatorname{tg} k(b-a) = \frac{4ka[(kb)^2 - 4] - 4kb[(ka)^2 - 4]}{4ka^2kb + [(kb)^2 - 4][(ka)^2 - 4]} \quad (2)$$

is the resonance equation for the solid. In the calculations, allowance must be made for a possible nonlinearity of absorption. If the resonance condition is fulfilled by the cavity and the solid, the tensions  $s_b$  and the particle velocities  $v_b$  on the exterior surface of the body read

$$\begin{aligned} s_b &= -\frac{(-1)^2 i \epsilon}{kb (kb)^2} \{ [(kb)^2 - 4] [ka \cos k(b-a) + \sin k(b-a)] - \\ &\quad - 4kb [ka \sin k(b-a) - \cos k(b-a)] \}; \\ v_b &= \frac{(-1)^2}{mpc (kb)^2} \left\{ \frac{\epsilon}{ka} [(kabb + ka + 1) \sin k(b-a) - (kabb + kb - ka) \cos k(b-a)] - \right. \\ &\quad - \frac{4\epsilon}{(ka)^2} [(kabb + 1) \sin k(b-a) - k(b-a) \cos k(b-a)] - \\ &\quad - i [kb \cos k(b-a) - \sin k(b-a)] - \\ &\quad \left. - \frac{4i}{(ka)^2} [(kabb + 1) \sin k(b-a) - k(b-a) \cos k(b-a)] \right\}. \end{aligned} \quad (3)$$

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A resonance device of solid...

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B125/B102

Eqs (3) are simplified if the radius of the cavity is not too long, owing to the condition  $k(b-a) = t\pi$  which holds in this case ( $t$  is an integer number) to  $\sigma_b = -(-1)^{s+t}i\epsilon(a/b)$ ;  $v_b = -i(-1)^{s+t}/\rho_1 c_1 k_1 b$ .  $p_a/p_b = b/a$ ;  $p_o/p_b = b/a\epsilon$  is derived from the initial impedance  $z = \sigma_b/v_b = \rho_1 c_1 \epsilon s\pi$  on the surface of the focusing device, with  $p_a$  and  $p_o$  being the pressure amplitude on the boundary and in the center of the cavity, respectively,  $p_b$  is the pressure on the surface of the apparatus. This ratio yields the coefficient of pressure intensification by this apparatus. The focusing device was developed on the basis of these considerations. There is 1 Soviet reference. ✓

ASSOCIATION: Akusticheskiy institut AN SSSR Moskva (Acoustics Institute AS USSR, Moscow)

SUBMITTED: July 7, 1961

Card 4/4

ISAKOVICH, M.A. .; CHABAN, I.A.

Acoustic behavior of highly viscous fluids and the theory of fluids. Dokl. AN SSSR 165 no.2:299-302 N '65.

(MIRA 18:11)

1. Submitted March 23, 1965.

ISAKOVICH, M. A.

On a paper by N.E.Zhukovskii containing a description of flaw  
detection by the echo method. Akust.zhur. 10 no.4:435-439 '64.  
(MIRA 18:2)

1. Akusticheskiy institut AN SSSR, Moskva.

L 31105-66 EWT(1)/EPF(n)-2/ETC(m) LIP(c) WW:GG

ACC NR: AP5028274

SOURCE CODE: UR/0020/65/165/002/0299/0302

AUTHORS: Isakovich, M. A.; Chaban, I. A.

ORG: None

TITLE: Acoustic behavior of strongly viscous liquids

SOURCE: AN SSSR. Doklady, v. 165, no. 2, 1965, 299-302

TOPIC TAGS: viscous fluid, emulsion, acoustic property, relaxation process, sound propagation

ABSTRACT: In view of the discrepancies between experimental results and various relaxation theories aimed at explaining the acoustic behavior of highly viscous liquids, the authors make use of the theory of media with microscopic inhomogeneities, developed by one of them (Isakovich, ZhETF v. 18, No. 4, 386, 1948 and No. 10, 907, 1948). From the analogy between the acoustic behavior of media with microscopic inhomogeneities and high viscous liquids, the authors present a phenomenological theory of such liquids, based on the statement that they are media with microscopic inhomogeneities, in which diffusion exchange takes place between the components. In particular, it is assumed that the liquid is a two-phase emulsion-like medium whose components are charac-

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UDC: 532.790

1-31105-50  
ACC NR: AF5028274

terized, besides pressure and temperature, also by some quantity ( $\epsilon$ ) whose equilibrium value varies in different fashion with changing pressure. Under this assumption, the calculation of the complex velocity of sound in the medium is carried out formally by the same method as the corresponding calculation for an emulsion, with certain substitution of the quantities characterizing the components. The proposed theory has no free parameters and all the quantities involved in the calculations are obtained directly from experiment. It is shown that this theory agrees well with experiment and makes it possible to interpret in natural fashion several phenomena hitherto unexplained (the experimentally observed linear variation of the elastic moduli at limiting frequencies with changing temperature, the dispersion of the dielectric constant and the frequency dependence of dielectric loss when samples of this type are placed in an alternating electric field, etc.). This report was presented by N. N. Andreyev. Authors are grateful to V. P. Bazhnichkina for help with the calculations. Orig. art. has: 3 figures and 1 formula.

SUB CODE: 20/ SUBM DATE: 13Mar65/ NR REF SOV: 010/ OTH REF: 010

Card

2/292

L 00631-67 EWT(1)/T/EWP(k) IJP(c) WG

ACC NR: AP6018814

SOURCE CODE: UR/0056/66/050/005/1343/1363

AUTHOR: Isakovich, M.A.; Chaban, I.A.

ORG: none

//  
10  
B

TITLE: Propagation of waves in highly viscous fluids

SOURCE: Zh eksper 1 teor fiz, v. 50, no. 5, 1966, 1343-1363

TOPIC TAGS: electromagnetic wave, phase shift, absorption, viscous fluid, temperature dependence, wave propagation, electromagnetic wave dispersion, electromagnetic wave absorption

ABSTRACT: The experimental data on anomalous absorption and dispersion of sonic, shear, and electromagnetic waves in highly viscous liquids indicate that the relaxation theory of wave propagation is not applicable to these liquids. It is assumed that in a wave, the ordered regions undergo a rearrangement, and the equilibrium number of holes is changed with respect to the second disordered component. The disturbed equilibrium with respect to the number of surplus holes is restored by the diffusion between the components. The phase shift of this process in respect to the incident wave results in anomalous absorption and dispersion. It is assumed that the static displacement viscosity of the medium is due to the mechanism of the Maxwellian

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S/887/61/000/000/021/069  
E202/E155

**AUTHORS:** Rozenberg L.D., Sirotiyuk M.G., and Isakovich M.A.

**TITLE:** Ultrasonic flaw-detector.  
A.c. no.102951, cl.42k, 20<sup>03</sup> (no.440405 of December 23, 1950)

**SOURCE:** Sbornik izobreteniy; ul'trazvuk i yego primeneniye.  
Kom. po delam izobr. i otkrytiy. Moscow, Tsentr. byuro tekhn. inform., 1961, 32-33

**TEXT:** An optically-transparent flat parallel plate is used in order to increase the sensitivity of the instrument and simplify its construction. This plate is in the focal plane of the sound focusing system. The instrument (Fig.25) converts the audio image into the visual one by utilizing the changes in the refractive index of the transparent medium when exposed to the action of sound. The plate is made from plexiglass or similar sound-absorbing material with a high coefficient of thermal expansion and low heat-conductivity, and is placed in the ambient medium, whose attenuation is close to that of the plate. The article under examination is placed in the path of the ultrasonic beam emerging  
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Ultrasonic flaw-detector

S/887/61/000/000/021/069  
E202/E155

from the transmitter. The focal plane of the system in the presence of the defect in the article forms a non-heterogeneous audio field and the defect produces on the plate a "dark" image against a "light" background. The coefficient of optical refraction of the plate is varied by the generation of local heating in the plate, caused by the dissipation of ultrasonic energy in the light background. The heat-spot in the plate remains sharply defined because the thermal conductivity is low. The optical non-homogeneities may be observed, e.g. by the shadow method. The light ray during the change of the refractive index in any part of the plate passes close to the dark filament and thence to the observer. There is 1 figure.

[Abstracter's note: Complete translation.]

Fig.25. Optical diagram of the flaw-detector.

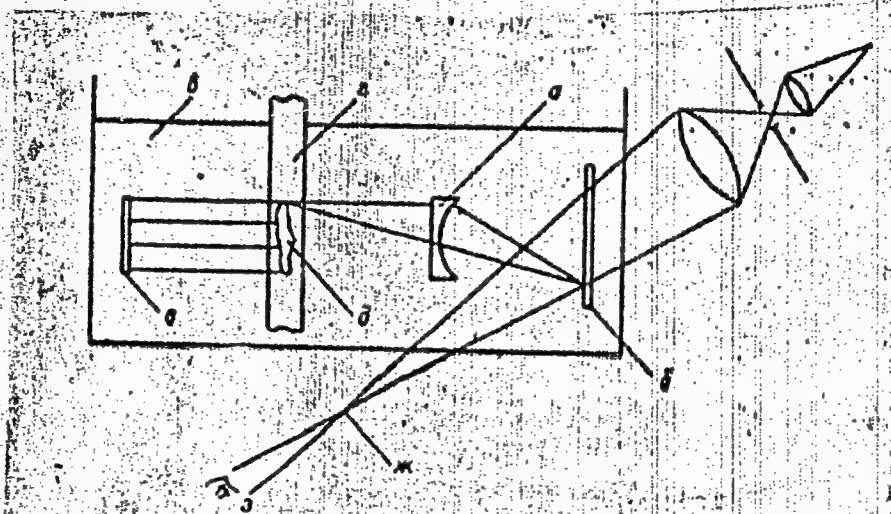
a - focusing system; 6 - plate; B - medium;  
2 - article; 0 - defect; e - transmitter;  
Ж - filament; 3 - observer.

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Ultrasonic flaw-detector

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E202/E155

Fig. 25



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ISAKOVICH, M.M.; MOLOTKOV, R.V.

Apparatus for determining the gelatinization time of epoxide and polyester compositions. Plast.massy no.5:60-61 '62. (MIRA 15:4)  
(Resins, Synthetic) (Gelation)

SINEE'NIKOV, A.V., ISAKOVICH, P.Ya., MAMIKONOV, A.G.

Principles for complete automation and remote control in  
petroleum production enterprises. Neft. khoz. 38 no. 61-6 '60.  
(MIRA 13:7)

(Oil fields—Production methods) (Automatic control)  
(Remote control)

Isakovich, R. Ya.

PHASE X

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 729 - X

BOOK

Call No.: AF648736

Author: Isakovich, R. Ya.

Full Title: CONTROL AND MEASURING APPARATUSES IN OIL RECOVERY

Transliterated Title: Kontrol'no - izmeritel'nyye pribory v dobyche  
nefti

PUBLISHING DATA

Originating Agency: None

Publishing House: State Scientific and Technical Publishing House  
of Petroleum and Mineral Fuel Literature  
(Gostoptekhnizdat)

Date: 1954

No. pp.: 357

No. of copies: 4,000

Editorial Staff: None

PURPOSE AND EVALUATION: This textbook is intended for the engineering staff and technical workers of the industry of oil recovery, specifically in institutes for measuring and control apparatus. The book outlines all the types of measuring instruments used in the field of oil prospecting and recovery. The instruments described are of Russian make, but they are similar to those manufactured in our country and are based on known principles. Information contained in this book is not found in one comprehensive English book, but must be looked for in many sources, such as: Pym, L. A. "Bottom-hole Pressure Measurement", Strong, M. W. "Bottom-hole Temperature Measurement" (both in The Science of Petroleum, ed. by A. E. Dustan et al.,

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instruments

1. Metrological concepts, definitions and terminology
2. System of units and system of dimensions. **Normal**  
conditions

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Kontrol'no - izmeritel'nyye pribory v dobyche nefti

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ISAKOVICH, R. Ya.

2. Use of a known bond for determination of equilibrium

for the reaction:  $2\text{H}_2 + \text{O}_2 \rightleftharpoons 2\text{H}_2\text{O}$

at 11.

1/2

SUSHILIN, Vasil'y Alekseyevich.; ISAKOVICH, R.Ya., red.; SAVINA, Z.A., ved. red.;  
POLOSINA, A.S., tekhn. red.

[Measurements in deep oil wells] Neftepromyslovye glubinnye izmereniia.  
Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry.  
1958. 168 p. (MIRA 11:10)

(Oil wells--Equipment and supplies)

ISA KOVICH, R. YA.

11(4) PHASE I BOOK EXPLOITATION SOV/212A

Mashvuzovskoye soveshchaniye po voprosam novoy tekhniki v nefteyanoy promyshlennosti. Moscow, 1956

Nauchnaya i razrabotka nefteyanykh i gazovykh zasorozhdeniy: materialy soveshchaniya, sostoyavshiesya v Moskve 1-2 i 4-5 Konferentsii po OIL and Gas Deposits, in the Petroleum Industry, Vol 1) Moscow, Gosoptekhnizdat, 1958. 311 p. Errata slip inserted. 1,500 copies printed.

Eds. I. M. Murav'yev, Professor, Doctor of Technical Sciences, and V. M. Dakhnov, Professor, Doctor of Geological and Mineralogical Sciences; Editorial Board: K. P. Zhukovskiy, Professor (Resp. Ed.), I. M. Murav'yev, Professor, A. A. Kichiginov, Candidate of Geological Sciences, V. I. Korov, Candidate of Geological Sciences, M. N. Chirnykh, Professor, P. P. Danayev, Professor, N. I. Chernomirskiy, Professor, Ye. M. Kuznetsov, Professor, V. M. Dakhnov, Professor, G. M. Panchevskiy, Professor, V. M. Dakhnov, Professor, Doctor of Geological and Mineralogical Sciences, N. S. Maslennikov, Doctor of Chemical Sciences, A. Almasov, Docent, V. M. Vinogradov, Candidate of Technical Sciences, V. I. Biryukov, Candidate of Technical Sciences, E. I. Taziyev, and V. M. Gurevich; Executive Ed.: N. P. Dobrynina; Tech. Ed.: E. A. Malchina.

PURPOSE: The book is intended for engineers and scientific personnel working in the petroleum industry and vires. It may also serve as a textbook for advanced students of petroleum vires.

COVERAGE: The book contains articles written by staff members of the Moscow, Gromnyy, and Ufa Petroleum Institutes, the Kuybyshev and Azerbaydzhan Industrial Institutes, the UGNI (Ufa Scientific Research Institute), VTI (Vologda Institute), All-Union Scientific Research Institute of Oil Drilling, KSNP (Design Office of Petroleum Institute), and the Bashnart Association (Bashkir Scientific Institute). These papers, read at the Mashvuz (International Scientific Conference, deal with new techniques in the petroleum industry introduced since 1956. Emphasis is given to the importance of efficient drilling, geophysical prospecting, working of oil and gas deposits, and the use of new devices employed in oil and gas exploitation. There are 52 references: 44 Soviet, and 8 English.

Eds. K. P. Zhukovskiy, V. M. Dakhnov, V. M. Dakhnov, and M. M. Gurevich; Moscow, Petroleum Institute. Petroleum-Base Drilling Fluids 92

The authors state that petroleum-base drilling fluids are being used to open productive horizons to maintain the pressure in the well at the time of drilling. The use of petroleum-base drilling fluids is particularly efficient for opening formations with high permeability and low pressure, where the absorption of a large amount of mud by the productive formation may prove dangerous. Petroleum-base drilling fluids also prove useful in opening formations with low permeability, particularly where the formation contains swelling clay. Petroleum-base drilling fluids produce good results in drilling under complex geological conditions and in drilling deep and directional wells.

Iskovikh, B. Ya. [Design Office of Petroleum Equipment]. Coo-  
trol and Measuring Devices Used in Research and Production  
The author cites data on instruments designed for research  
and control of petroleum equipment. Instruments used in working oil de-  
posits. Equipment developed by the KDP may be divided into  
the following groups: 1) equipment for the study of petro-  
leum reservoirs; 2) equipment for the study of petroleum  
properties under formation conditions; 3) control-measuring  
devices and equipment for depth measurements. The article  
also refers briefly to work on automation, remote con-  
trol, and the management of processes of petroleum production.

Ivanov, M. M. [Ufa Petroleum Scientific Research Institute].  
New USSR Instruments for Studying Deep Wells. 296

The author lists new models of USSR-designed depth instru-  
ments. Between 1954 and November 1955 work was performed  
with the USSR differential manometers in studying  
well interference and the location of oil deposits.  
These studies led to important conclusions on the structure  
of oil formations D<sub>1</sub> and D<sub>2</sub> in the Tuzhany area and confirmed  
the existence of hydraulic contact between the two formations.  
A depth piezograph, produced at the UGNI Institute is now  
undergoing industrial tests.

Aliev, G. A., Yu. I. Grachev, A. M. Malik-Shakhmurov, and  
A. R. Prigun [Azerbaijani Industrial Institute]. Telemetering  
Parameters of Deep Oil Wells 304

The authors discuss the importance of depth studies (in drilling  
and working oil wells). The Azerbaijan Institute studies and  
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[Instruments and automation of petroleum production] Kontrol'  
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(MIRA 13:1)

(Oil fields--Production methods)  
(Automatic control)

ALEKSANDROV, A.M., inzh.; BAZHENOV, V.S., inzh.; BOBROVNIKOV, B.N., inzh.; VAGANOV, M.P., inzh.; GUREVICH, B.M., inzh.; DZHIBELLI, V.S., inzh.; DROBAKH, V.T., inzh.; ISAKOVICH, R.Ya., kand. tekhn. nauk; KAPUSTIN, A.G., inzh.; KONENKOV, K.S., inzh.; MININ, A.A., kand. tekhn. nauk; PEVZNER, V.B., inzh.; PESKIN, G.L., inzh.; PORTER, L.G., inzh.; PRYADILOV, A.N., inzh.; SLUTSKIY, L.B., inzh.; FEDOSOV, I.V., inzh.; FRENKEL', B.A., inzh.; TSIMBLER, Yu.A., inzh.; SHUL'GIN, V.Kh., inzh.; ESKIN, M.G., kand. tekhn. nauk; VOROB'YEV, D.T., inzh. [deceased]; SINEL'NIKOV, A.V., kand. tekhn. nauk; SHENDLER, Yu.I., kand. tekhn. nauk, red.; NESMELOV, S.V., inzh., zam. glav. red.; NOVIKOVA, M.M., ved. red.; RASTOVA, G.V., ved. red.; SOLGANIK, G.Ya., ved. red.; VORONOVA, V.V., tekhn. red.

[Automation and apparatus for controlling and regulating production processes in the petroleum and petroleum chemical industries] Avtomatizatsiya, pribory kontrolya i regulirovaniya proizvodstvennykh protsessov v nefte i neftekhimicheskoi promyshlennosti. Moskva, Gostoptekhizdat. Book 3. [Control and automation of the processes of well drilling, recovery, transportation, and storage of oil and gas] Kontrol' i avtomatizatsiya protsessov bureniya skvazhin, dobychi, transporta i khraneniya nefti i gaza. 1963. 551 p. (Automation) (MIRA 16:7)

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Abstr Jour: Ref Zhur - Biol., No 10, 1978, 61771

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Inst : -

Title : Vaccination Against Tuberculosis of Children  
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S/0191/64/000/005/0057/0060

AUTHOR: Isakovich, Ye. G.

TITLE: Investigation of the mechanical characteristics of polymeric materials at different operating speeds in short term static tests

SOURCE: *Plasticheskiye massy*\*, no. 5, 1964, 57-60

TOPIC TAGS: polymer, tensile strength, static test, ebonite, organic glass, viniplast, static stress test, test method, reliability, deformation rate

ABSTRACT: The tensile strengths of ebonite, an organic glass and a viniplast were determined with the moving clamp of the test apparatus moving at different rates in order to clarify the relationship between material strength and the rate of motion of the test machine. The test samples were prepared according to GOST 4649-55; the "Kovostov" test machine was run at rates such that the clamp moved at 25, 40, 100, 200 and 400 mm/min.; readings were taken with a mechanical and an electrical tensometer. Upon increasing the rate of motion of the clamp, under conditions of static stress, the strength of these materials increased, but this increase was

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